In the Specification

Please insert the accompanying Sequence Listing as new page 1 following page 20 (Abstract of the Disclosure) in the subject specification.

Please replace the paragraphs found on page 15, line 16 through page 16, line 4 of the specification with the following paragraphs:

A thiolated oligo was obtained from QIAgen (5'-[ThiSS] TAAAACGACGGCCAGTGC-3') (SEQ ID NO:1) after HPLC purification. A 1μM of the solution of the thiolated oligo in 5x SET buffer was incubated overnight in the flow cell at a flow rate of 20μl $hour^{-1}$. The next day the cell was washed with a flow rate of 5μl $minute^{-1}$ with 5x SET for ten minutes, 5x SET, 0.1% SDS for 60 minutes, 5x SET for 10 minutes and 5x SET, 0.1% mercaptohexanol for 60 minutes. The flow cell was equilibrated with a flow stream of 2x SET at 5μl $minute^{-1}$ and held at 20 °C.

Complementary DNA (5'-GCACTGGCCGTCGTTTTA) (SEQ ID NO:2) 1μM in 2x SET was injected into the flow stream at a rate of 5μl $minute^{-1}$. Association of the complimentary sequence with the immobilised probe on the sensor surface was detected by the interoferometric system. When the fluidic cell was heated for 30 seconds (to a thermo-couple temperature of 50°C) the double stranded DNA dissociated and the baseline returned to the previous level. 1mM $NaNO_2$ was injected into the flow stream and resulted in the removal of the thiolated oligo from the sensor surface and a concominant decrease in correlation shift. This experiment therefore demonstrates the label free Surface Plasmon Resonance monitoring of polynucleotide association and dissociation with a immobilized probe molecule as a function of temperature. This is of particular use in context of real-time PCR.